



**Department of Environmental Protection
Bureau of Land & Water Quality
O&M Newsletter
September 2005**

A monthly newsletter for wastewater discharge licensees, treatment facility operators, and associated persons

DECTA Staff Changes

There have been four staff members that have left the Bureau of Land & Water Quality's Division of Engineering, Compliance, and Technical Assistance over the last few months. Most were due to retirements in the Augusta Office. The exception was Steve Arnold of the Southern Maine Regional Office who left DEP in July to take a position as the water and wastewater manager with the Paris Utility District. Fred Gallant will transfer to DECTA as Steve's replacement in October. Fred previously worked in the Division of Land Resource Regulation.

Richard Green retired as the Small Community Grants/Overboard Discharge Removal Grants Coordinator in June. Tim MacMillan has been promoted to this position and previously served as a project engineer in the State Revolving Loan Fund Program. Jim Rogers retired in September as the DEP Pretreatment Coordinator. Until his position can be filled, please contact Ken Jones (287-4869) or Sterling Pierce (287-4868) with pretreatment questions.

Bill Brown also retired in September as the Division Director of DECTA. Steve McLaughlin has been asked to serve as acting capacity Division Director. Steve continues to manage the State Revolving Loan Fund Program. Please contact Steve (287-7768) with any DECTA questions in the future.

Ken Jones

For Practice

1. The laboratory test used to measure the concentration of hydrogen ions in water is called
 - a. Turbidity
 - b. pH
 - c. Alkalinity
 - d. oxidation-reduction potential (ORP)
2. The volt is:
 - a. the basic unit of electrical power
 - b. the basic unit of electrical potential
 - c. the basic unit of electrical resistance
 - d. the basic unit of electrical current

3. If too much aeration is provided in the aeration basin, what is most likely to happen in the secondary clarifier(s)?
 - a. the settling of the activated sludge will improve.
 - b. the oxygen uptake will increase.
 - c. the sludge will become bulky and hard to settle
 - d. there will be small floc particles on the surface of the clarifier

4. A wastewater treatment plant receives waste from domestic users and an industry. The influent flow is 750,000 gpd. and the influent BOD averages 175 mg/l. If an average of 0.17 lb/person/day is assumed for domestic waste, what is the population equivalent served by the plant
 - a. 2,537
 - b. 6,439
 - a. 10,342
 - b. 34,582

2005 Wastewater Exams

Applications for the Fall 2005 wastewater operator exam, which will be given on November 9, 2005, must be postmarked on or before September 23, 2005 or hand delivered to the DEP Augusta Office on September 26, 2005.

Dick Darling

Approved Training

September 6, 2005 in Augusta, ME – Understanding Dig-Safe - sponsored by MRWA – 207-729-6569 – Approved for 2.5 hours

September 7, 8 & 15, 2005 in various locations – Lien Law - sponsored by MRWA – 207-729-6569 – Approved for 3.0 hours

September 21, 2005 in Waterville, ME – Income Survey - sponsored by MRWA – 207-729-6569 – Approved for 2.75 hrs

September 27, 2005 in Old Town, ME – Chemical Handling Safety - sponsored by MRWA – 207-729-6569 – Approved for 4 hrs

September 28, 2005 in Houlton, ME – Chemical Handling Safety - sponsored by MRWA – 207-729-6569 – Approved for 4 hrs

September 28, 2005 in Augusta, ME – Chemical Handling Safety - sponsored by MRWA – 207-729-6569 – Approved for 4 hrs

September 29, 2005 in Biddeford, ME – Chemical Handling Safety - sponsored by MRWA – 207-729-6569 – Approved for 4 hrs

October 4, 5, 6, 25 & 26 in various locations – Overhead Hoists and Cranes - sponsored by MRWA – 207-729-6569 – Approved for 4 hours

October 6, 2005 in Portland, ME - O & M for Small Communities - sponsored by JETCC – 207-253-8020 – Approved for 6 hours

Oct. 5, 12, 19& 26, 2005 in Bangor, ME
- Basic WW treatment - sponsored by
JETCC – 207-253-8020 – Approved for
24 hours

October 13, 2005 in Scarborough, ME -
Smith & Loveless Pump Station -
sponsored by JETCC – 207-253-8020 –
Approved for 6 hours

October 27, 2005 in Augusta, ME -
FOG, Sewer Use Ordinance & Septage
composting - sponsored by JETCC –
207-253-8020 – Approved for 6 hours

November 2, 2005 in Lewiston, ME -
All You Wanted to Know about Septage
but Were Afraid to Ask - sponsored by
JETCC – 207-253-8020 – Approved for
6 hours

November 8, 2005 in Presque Isle, ME -
Pipebursting: A Practical and Diverse
Rehab Option - sponsored by JETCC –
207-253-8020 – Approved for 6 hours

November 11, 2005 in Augusta, ME –
Developing Written Safety Plans -
sponsored by WPETC – 207-761-2991 –
Approved for 4 hours

Nov 10, 2005 in Bangor, ME - One Plan
- sponsored by JETCC – 207-253-8020 –
Approved for 6 hours

November 15, 2005 (a.m.) in North
Vassalboro, ME - QA/QC of your
Laboratory Equipment - sponsored by
JETCC – 207-253-8020 – Approved for
3 hours

November 15, 2005 (a.m.) in North
Vassalboro, ME - Instrument Calibration
Basics - sponsored by JETCC – 207-
253-8020 – Approved for 3 hours

November 11, 2005 in Bangor, ME –
Developing Written Safety Plans -
sponsored by WPETC – 207-761-2991 –
Approved for 4 hours

Nov 17, 2005 in Portland, ME - One
Plan –A Step By Step Approach to
Integrated Contingency Planning
sponsored by JETCC – 207-253-8020 –
Approved for 6 hours

November 30 – December 1, 2005 in
Freeport, ME – MRWA Annual
Conference – 207-729-6569 – Approved
for credit depending on length of class

Dec 7, 2005 in Orono, ME - Phosphorus
Removal - sponsored by JETCC – 207-
253-8020 – Approved for 6 hours

Dec 6 & 7 in Brewer, ME - Laboratory
Procedures with voluntary NEWEA
Exam - sponsored by JETCC (In
cooperation with NEIWPCC) – 207-253-
8020 – Approved for 9 hours

December 14, 2005 in Augusta, ME -
Access for Wastewater and Water
Operators - sponsored by JETCC – 207-
253-8020 – Approved for 6 hours

Note:

JETCC stands for Joint Environmental
Training Coordinating Committee

MRWA stands for Maine Rural Water
Association

MWWCA stands for Maine Wastewater
Control Association

NEIWPCC stands for New England
Interstate Water Pollution Control
Commission

WPETC stands for Wright Pierce
Environmental Training Center.

Answers to *For Practice*:

1. b. pH measures the concentration of hydrogen ions in water. Neutral pH ($\text{pH} = 7$) means that there is a balance of hydrogen (H^+) ions and hydroxide (OH^-) ions in the water. When there are more hydrogen ions, the pH is lower. This is an acid condition. When there are more hydroxide ions, the pH is higher. This is an alkaline condition.
2. b The volt is the unit used to express electrical potential.
3. c. Too much aeration will cause the sludge to become over-oxidized resulting in pin-floc formation. Pin floc do not settle well and will be carried up and over the weirs. Over-aeration may also cause well-formed floc particles to shear, breaking them into smaller clumps which do not settle well.
4. b $750,000 \text{ gallons} = 0.75 \text{ MG}$
 $\text{Plant Loading} = 0.75 \text{ MG} \times 175 \text{ mg BOD/L} \times 8.34 \text{ lb/gallons} = 1,095 \text{ lb BOD/day}$
 $1,095 \text{ lb BOD/day} / 0.17 \text{ lb/person/day} = 6,439 \text{ persons}$

Change in O&M Newsletter Schedule

From this month on we will be putting out the O&M Newsletter on an every other month basis. Hopefully this will still get you the information you need in a timely fashion. If anyone has any suggestion of what you would like to see in the newsletter please feel free to write, call, or e-mail your ideas. My phone number is (207) 287-9031, e-mail is Leslie.A.Rucker@maine.gov. and regular mail can go to:

Leslie Rucker
ME DEP
17 State House Station
Augusta, ME 04333